What is claimed is:

1. A process for producing a cylinder block with a sleeve having arc recesses formed at an intersection between a deck face joined to a cylinder head and a cylinder bore for avoiding interference with umbrella portions of valves mounted in the cylinder head, said process comprising the step of casting a sleeve such that it is embedded in the cylinder block spaced from the deck face simultaneously with molding of an opening end portion of the cylinder bore and the recesses in the cylinder block in said space using a bore pin mated with said sleeve to support said sleeve.

2. The process for producing a cylinder block with a sleeve according to claim 1, wherein said sleeve and said cylinder block are made from an aluminum alloy.

3. The process for producing a cylinder block with a sleeve according to claim 1, wherein said bore pin includes a first diameter portion for mating with said sleeve and a second diameter portion for forming said opening end portion of said cylinder bore, said second diameter portion being larger than said first diameter portion for forming said opening end portion of said cylinder bore having a larger diameter than an inner face of said sleeve.

4. The process for producing a cylinder block with a sleeve according to claim 2, wherein said bore pin includes a first diameter portion for mating with said sleeve and a second diameter portion for forming said opening end portion of said cylinder bore, said second diameter portion being larger than said first diameter portion for forming said opening end portion of said cylinder bore having a larger diameter than an inner face of said sleeve.

5. The process for producing a cylinder block with a sleeve according to claim 3, wherein said second diameter portion also includes projections formed thereon for forming said recesses.

6. The process for producing a cylinder block with a sleeve according to claim 4, wherein said second diameter portion also includes projections formed thereon for forming said recesses.

7. The process for producing a cylinder block with a sleeve according to claim 3, further comprising the step of cutting the inner face of said sleeve to have a diameter the same as the diameter of said opening end portion of said cylinder bore.

8. The process for producing a cylinder block with a sleeve according to claim 4, further comprising the step of cutting the inner face of said sleeve to have a diameter the same as the diameter of said opening end portion of said cylinder bore.

9. A cylinder block with a sleeve made by the process of claim 1.

10. A cylinder block with a sleeve having arc recesses formed at an intersection between a deck face joined to a cylinder head and a cylinder bore for avoiding interference with umbrella portions of valves mounted in the cylinder head, said cylinder block comprising:

a body, said body having a cylinder bore formed therein; and

a sleeve, said sleeve being embedded in the body at a location spaced from the deck face,

wherein a surface of said cylinder bore is formed by a portion of said body and an inner surface of said sleeve, said portion of the body including the arc recesses formed therein.

11. The cylinder block with a sleeve according to claim 10, wherein said sleeve and said body are made from an aluminum alloy.

12. A bore pin for use in casting a cylinder block with a sleeve having arc recesses formed at an intersection between a deck face joined to a cylinder head and a cylinder bore for avoiding interference with umbrella portions of valves mounted in the cylinder head comprising:

a first diameter portion for mating with the sleeve; and

a second diameter portion for forming an opening end portion of a cylinder bore of the cylinder block, said second diameter portion being larger than said first diameter portion for forming the opening end portion of the cylinder bore having a larger diameter than an inner face of the sleeve and including projections formed thereon for forming the recesses simultaneously with the opening end portion of the cylinder bore.